

Carterra[®] LSA[®]: Sensor Chip Descriptions

Selection of the appropriate sensor chip surface is essential for robust data quality when designing a high throughput SPR assay. Carterra offers a broad range of chip surfaces to support the diverse applications available on the LSA. Described here are the standard chip offerings for the LSA. Custom surfaces may be available upon request. Always consult with a Carterra Applications Scientist when selecting sensor chips.

Name	Description	Application
HC30M	Polycarboxylate hydrogel, medium charge density, 30nm coating thickness	Moderate ligand capacity and excellent diffusion characteristics
HC200M	Polycarboxylate hydrogel, medium charge density, 200nm coating thickness	Higher ligand capacity for increased levels of immobilization
CMDP	2D planar carboxymethyl dextran surface, <5nm coating thickness	Lower ligand capacity and excellent diffusion characteristics
CMD50M	Carboxymethyl dextran hydrogel, medium charge density, 50nm coating thickness	Moderate ligand capacity and improved diffusion characteristics
CMD200M	Carboxymethyl dextran hydrogel, medium charge density, 200nm coating thickness	Higher ligand capacity for increased levels of immobilization
CMD500M	Carboxymethyl dextran hydrogel, medium charge density, 500nm coating thickness	Higher ligand capacity for maximum levels of immobilization
SAD200M	Streptavidin, immobilized in a carboxymethyl dextran hydrogel, medium charge density, 200nm coating thickness	High capacity for biotinylated ligand applications
SAHC30M	Streptavidin, immobilized in polycarboxylate hydrogel, medium charge density, 30nm coating thickness	Lower capacity for biotinylated ligand kinetic laws
SAP	Streptavidin immobilized on 2D planar carboxymethyl dextran surface, <5nm coating thickness	Very low capacity for arraying of biotinylated ligands
NiHC200M	Poly - NTA derivatized linear polycarboxylate hydrogel, medium charge density, 200nm coating thickness	High capacity for His-tagged ligand applications
PAGHC30M	Protein A/G derivatized linear polycarboxylate hydrogel, medium charge density, 30nm coating thickness	Moderate capacity for kinetics of multi-species IgG
PAGHC200M	Protein A/G derivatized linear polycarboxylate hydrogel, medium charge density, 200nm coating thickness	High capacity for quantitation of multi-species IgG
PAHC200M	Protein A derivatized linear polycarboxylate hydrogel, medium charge density, 200nm coating thickness	High capacity for quantitation of human IgG

- NOTE: While CMD is a well described chemistry for use in biosensors, the linear polycarboxylate chemistry of HC chips provides an alternate surface chemistry to that of CMD in instances of non-specific binding or when differential diffusion characteristics are warranted. When stored at -20 °C, the CMD, HC, and NiHC surfaces are good for two years after purchase, while protein derivatized coatings such as SAD, Protein A, and Protein A/G should be used within one year.

Carterra technology is protected by the following patents and other patents pending:
8,210,119, 8,211,382, 8,383,059, 8,999,726, 9,682,372, 9,682,396, 10,825,548

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